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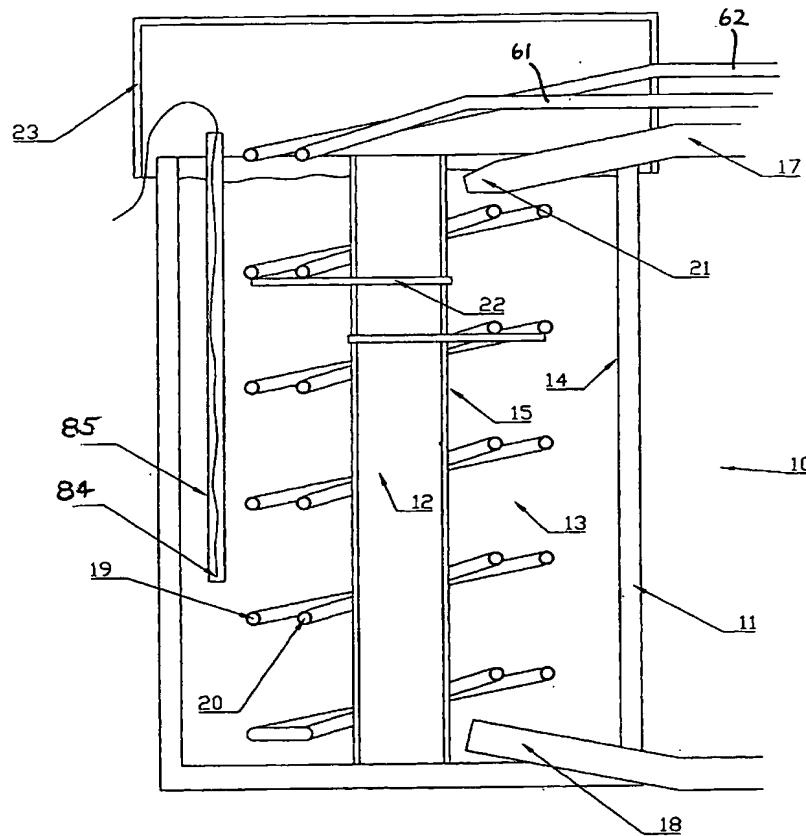
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[Continued on next page]

(54) Title: THERMAL STORAGE DEVICE



(57) Abstract: A refrigeration device (10) including a generally cylindrical tank (11) including outer sidewalls (14) adapted to contain a first fluid. The device further includes a heat exchange fluid inlet (17) to the tank, a heat exchange fluid outlet (18) from the tank and a refrigeration unit (60). At least one hollow refrigeration evaporator coil (19, 20) is in fluid communication with the refrigeration unit by means of refrigerant feed and extraction pipes (61 and 62). The coil is helically disposed within the tank for freezing the first fluid adjacent the coil, such that in use the frozen fluid and the sidewalls together define a substantially helical path to direct the flow of a heat exchange fluid from the inlet to the outlet.



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INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU02/00413

A. CLASSIFICATION OF SUBJECT MATTER

Int. Cl. ⁷: F25D 3/02,17/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WPAT:IPC F25D and helical or spiral or coil

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	AU 777144/91 A (Hegarty A.J. et al) 21 November 1991 See whole document in particular fig 3	1-4
X	GB 2343243 A (IMI Cornelius (UK) Ltd.) 3 May 2000 See whole document in particular fig1	1
X	GB 2289937 A (IMI Cornelius (UK) Ltd.) 6 December 1995 See whole document in particular fig1	1



Further documents are listed in the continuation of Box C



See patent family annex

* Special categories of cited documents:		
"A" document defining the general state of the art which is not considered to be of particular relevance	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

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aThis Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report		Patent Family Member
AU	77144/91	WO 9510559
GB	2343243	AU 63588/99
GB	2289937	NIL

END OF ANNEX